



Staff Report

DISCUSSION AND DIRECTION FOR IN-PAVEMENT CROSSWALK LIGHTS AND ACTIVE SCHOOL ZONE RADAR SIGNS – PHASE II, CITY CONTRACT NUMBER 460

Honorable Mayor and Council Members:

Summary

City Contract Number 460 is for the phased installation of in-pavement crosswalk lights and active school zone radar signs at various locations throughout the City. Phase I construction and trial period is complete. Staff is seeking direction from City Council for the additional work in Phase II. Staff will bring a request for change order approval to the May 10th meeting if Council directs additional installations.

Background

The City of Belmont received a Safe Routes to School (SR2S) grant in the amount of \$372,690 for the installation of in-pavement crosswalk lights and active school zone radar signs for various sites throughout the City. The City is required to provide a 10% match of the total project cost. The City's share will be \$41,410 if the entire grant is used (see table below).

SR2S Grant Summary			
	Grant (90%)	Local Match (10%)	Total
Engineering Design and Preliminary Engineering	\$28,350	\$3,150	\$31,500
Construction	\$334,890	\$37,210	\$372,100
Construction Engineering	\$9,450	\$1,050	\$10,500
Total	\$372,690	\$41,410	\$414,100

On August 10, 2004, Council directed staff to split into two phases the installation of the in-pavement crosswalk lights and the active school zone radar signs and authorized advertisement for sealed bids. On September 16, 2004, Republic Electric supplied the lowest responsible bid in

the amount of \$209,700.00, and was the awarded contract. The contract was executed on September 29, 2004. All grant funds must be used before September 30, 2005 or the City will lose the funds.

Phase I construction included the installation of in-pavement crosswalk lights at the following three locations:

- Ralston Avenue and Elmer Street
- Ralston Avenue and Villa Avenue
- Alameda de las Pulgas at IHM

Phase I also included the installation of the active school zone radar signs on Ralston Avenue at the east and westbound approaches to Ralston Middle School.

Phase I was substantially complete and the trial period began on January 14, 2005. Staff sought comments from the residents on the Phase I installations.

We have spent \$105,635 in Phase I. There is a remaining balance of \$308,465 budgeted for this project.

Discussion

Phase I

City Council requested staff to receive public input on the installations. After completion of Phase I, staff sought comments from the residents. The neighborhood association presidents were contacted and requested to forward a survey to their neighborhood members. Staff also attended a Neighborhood Association Presidents Meeting on February 17, 2005 to present an update of the project and receive input.

Five comments received were generally positive. Several suggestions were made for improvement. The majority of the concerns regarded the brightness of the product viewed during the daylight hours, the quantity of lights installed at each location and switching to a hard wire in-pavement lighting system.

Staff worked with the vendor and the vendor agreed to upgrade the in-pavement crosswalk lights with a newer, brighter light at no additional cost to the City. The new lights, installed in the first half of April, are rated to be 10 times brighter than the lights originally installed.

Staff reviewed each location and determined that additional lights could be added to better alert drivers to the crosswalk. Staff proposes that four additional lights could be added to each existing location. Two lights would be added in each direction of travel and placed on the lane

line. Staff also proposes replacing the static crosswalk symbol signs with wireless and solar powered

crosswalk warning symbol sign with LED flashers. Cost for the additional lights and the crosswalk warning symbol sign with LED flashers are approximately \$2,000 per light and \$3,800 per sign. The cost to enhance the existing locations is estimated to be \$46,800.

Staff also researched and determined that the lights cannot be retrofitted nor redesigned to a hard-wired lighting system. Existing installations would require complete removal of the lights and push buttons. A new hard-wired system needs to be designed specifically for each location and detail getting PG&E power to the site. The City would not be able to redesign the system and get the plans approved by Caltrans before the grant expires.

Additionally, the cost and construction time for a hard-wired system is more than double that of the wireless system. The biggest cost and time differential is installation. Trenching is required to install the hard-wired system. It also requires the travel lanes to be closed for a longer time period. Because of these factors, staff decided not to pursue switching the wireless system to a hard-wired system.

There is \$308,465 remaining in the project's budget. The enhancements to the existing installations will cost \$46,800. There is \$261,665 remaining in the project's budget for new installations if the enhancements are approved. A change order will be required for any installations that exceed the existing unspent funds for the contract.

Phase II

The remaining locations that were identified in the grant application are as follows:

- Middle Road between Virginia Avenue and Camino Vista Court
- Ralston Avenue and Chula Vista Drive
- Ralston Avenue and Notre Dame Avenue
- Ralston Avenue and Maywood Drive
- Ralston Avenue and Pullman Avenue
- Alameda de las Pulgas and Garden Court

Phase II also includes installation of the active school zone radar signs on Ralston Avenue at the east and westbound approaches to Notre Dame High School.

It is proposed that any new installations will be installed with the additional in-pavement crosswalk lights and the warning signs with LED flashing lights.

The following table summarizes the cost to install in-pavement crosswalk lights and supplemental warning signs for each location:

<u>In-Pavement Crosswalk Light Locations</u>	<u>Cost</u>
1. Middle Road between Virginia and Camino Vista	\$38,000
2. Ralston/Chula Vista	\$50,000
3. Ralston/Notre Dame	\$45,000
4. Ralston/Maywood	\$45,000
5. Ralston/Pullman	\$45,000
6. Alameda de las Pulgas/Garden	<u>\$42,000</u>
Subtotal:	\$265,000

<u>Active School Zone Radar Sign Location</u>	
Notre Dame High School	<u>\$23,000</u>
Total:	\$288,000

Budget remaining after enhancements: \$261,665

It should be noted that the in-pavement crosswalk locations are listed in order of staff's recommendation for installation.

Fiscal Impact

The following summarizes the project's fiscal impact:

Project Budget	\$414,100
Less Phase I Costs	<u>\$105,635</u>
Amount Available	\$308,465
Remaining Projects:	
Upgrade Existing Location	\$ 46,800
New Location	\$265,000
Active Radar	<u>\$ 23,000</u>
	\$334,800
Project Deficit	\$ 26,335

Since proceeding with all remaining projects will result in a deficit, staff seeks direction from Council on prioritizing the remaining work to be performed. Unspent grant funds will be lost and cannot be reprogrammed.

It should be noted the existing contract with the contractor is for \$209,700 based upon the plans and specifications in the original bid documents. There is currently a balance of \$104,065 in the contract. There is sufficient funding available to authorize the enhancements to the existing locations and installation of the active school zone radar as a change order to the existing

contract. If the Middle Road location is added at a cost of \$38,000, then the total project cost of \$334,800 exceeds the amount of funding available by \$26,335. The project would supplement the deficit from account number 234-4312-3100.

Public Contact

The neighborhood association presidents were contacted and requested to forward a survey to their neighborhood members seeking comments on the project. Staff also attended a Neighborhood Association Presidents Meeting on February 17, 2005 to present an update of the project and receive input.

Recommendation

Staff recommends that Council provide direction for the following:

1. Should staff install in-pavement crosswalk lights and supplemental warning signs with LED flashers at the existing locations?

Cost
\$46,800

2. Should staff install in-pavement crosswalk lights and supplemental warning signs with LED flashers at any other location?
If yes, where?

<u>Locations for consideration</u>	<u>Cost</u>
Middle Road between Virginia and Camino Vista	\$38,000
Ralston/Chula Vista	\$50,000
Ralston/Notre Dame	\$45,000
Ralston/Maywood	\$45,000
Ralston/Pullman	\$45,000
Alameda de las Pulgas/Garden	<u>\$42,000</u>
Total: \$265,000	

3. Should staff install the active school zone radar signs at Notre Dame High School?

Cost
\$23,000

Consistent with the City's Purchasing Ordinance, staff will bring a request for approval of change orders to the May 10, 2005 City Council meeting if the total cost of the directed changes exceeds staff's authorization.

Alternatives

1. Refer back to staff for additional information

2. Complete Phase I without enhancement and omit Phase II
3. Complete Phase I with enhancements and omit Phase II
4. Install selected locations of Phase II with enhancements
5. Take no action

Attachments

A. Location Map

Respectfully submitted,

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Daniel Rich
Interim City Manager



EXHIBIT

Carlmont High School
Notre Dame High School
Central Elementary School
Belmont Public Library
Fox Elementary School
Immaculate Heart of Mary
Merry Moppet School
Charles Armstrong School
Notre Dame Elementary
Belmont Oaks Academy
Nesbit Elementary School
Ralston Middle School

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Legend

- Existing Active School Zone Radar Signs
- Proposed Active School Zone Radar Signs
- Existing In-Pavement Crosswalk Lights
- Proposed In-Pavement Crosswalk Lights
- Streets
- City Limits